WHAT IS CLAIMED IS:

1. A tracking controller comprising

a tracking error detecting section for generating and outputting a tracking error signal that represents how much the focal point of a light beam has shifted from a target track on a storage medium, and

a tracking control section for generating a drive signal in response to the tracking error signal so as to move the light beam such that the focal point of the light beam is located right on the target track,

wherein the gain of at least one of the tracking error signal and the drive signal is switched depending on whether or not the focal point of the light beam is located on a recorded area of the storage medium on which data has already been written.

2. The tracking controller of claim 1, further comprising a tracking error amplitude adjusting section for multiplying the tracking error signal by a predetermined proportionality constant,

wherein the gain of the tracking error signal is switched by changing the proportionality constant depending on whether or not the focal point of the light beam is located on the recorded area.

3. A tracking controller comprising

a tracking error detecting section for generating and outputting a tracking error signal that represents how much the focal point of a light beam has shifted from a target track on a storage medium, and

a tracking control section for generating a drive signal in response to the tracking error signal so as to move the light beam such that the focal point of the light beam is located right on the target track,

wherein the gain of at least one of the tracking error signal and the drive signal is switched depending on whether or not data is being written on the storage medium.

4. The tracking controller of claim 3, further comprising a tracking error amplitude adjusting section for multiplying the tracking error signal by a predetermined proportionality constant,

wherein the gain of the tracking error signal is switched by changing the proportionality constant depending on whether or not data is being written on the storage medium.

5. The tracking controller of claim 2 or 4, further comprising a tracking gain calculating section for calculating and storing a gain of a tracking control loop, which is defined by the tracking error detecting section, the

tracking error amplitude adjusting section and the tracking control section, at an arbitrary frequency,

wherein a ratio of the gain that has been calculated by the tracking gain calculating section for the recorded area, on which the data has been written, to the gain that has been calculated by the tracking gain calculating section for an unrecorded area, on which the data has not yet been written, is used as the proportionality constant.

6. The tracking controller of claim 1 or 3, further comprising a tracking gain calculating section for calculating and storing a gain of a tracking control loop, which is defined by the tracking error detecting section and the tracking control section, at an arbitrary frequency,

wherein the gain is switched depending on the gain that has been calculated by the tracking gain calculating section for the recorded area, on which the data has been written and the gain that has been calculated by the tracking gain calculating section for an unrecorded area, on which the data has not yet been written.

7. The tracking controller of claim 2 or 4, further comprising a tracking error amplitude measuring section for measuring the amplitude of the tracking error signal,

wherein a ratio of the gain that has been calculated by

the tracking gain calculating section for the recorded area, on which the data has been written, to the gain that has been calculated by the tracking gain calculating section for an unrecorded area, on which the data has not yet been written, is used as the proportionality constant.

8. The tracking controller of claim 1 or 3, further comprising a tracking error amplitude measuring section for measuring the amplitude of the tracking error signal,

wherein the gain is switched depending on the amplitude that has been measured by the tracking error amplitude measuring section for the recorded area, on which the data has been written and the amplitude that has been measured by the tracking error amplitude measuring section for an unrecorded area, on which the data has not yet been written.

9. The tracking controller of claim 1, 6 or 8, further comprising

a light detecting section for detecting light that has been reflected from, or transmitted through, the storage medium, and

an area distinguishing section for judging whether the focal point of the light beam is located on the recorded area or on the unrecorded area.

10. The tracking controller of any one of claims 5 to 8, further comprising a light source for emitting the light beam,

wherein the unrecorded area is turned into the recorded area by writing data on the storage medium with the light beam focused thereon, or

wherein the recorded area is turned into the unrecorded area by erasing data from the storage medium with the light beam focused thereon.

11. The tracking controller of claim 9, further comprising a transport section for moving the focal point of the light beam across the tracks on the storage medium,

wherein an area distinction value is defined in advance based on the outputs of the light detecting section, the area distinction value being used to judge whether the focal point of the light beam is located on the recorded area or on the unrecorded area, the outputs having been obtained for the recorded area and the unrecorded area when the focal point of the light beam was moved by the transport section to the recorded area and to the unrecorded area, respectively, and

wherein the area distinguishing section determines, by the area distinction value and the outputs of the light detecting section, whether the focal point of the light beam is located on the recorded area or on the unrecorded area.

12. The tracking controller of claim 11, wherein the area distinction value is defined based on peak values of the light beams that have been reflected from, or transmitted through, the recorded area and the unrecorded area, respectively, during a predetermined period.

13. The tracking controller of claim 1 or 3, wherein the storage medium is a write-once storage medium.

14. The tracking controller of any one of claims 5 to 8, wherein management information for the storage medium has been recorded in advance on the recorded area.

15. The tracking controller of any one of claims 5 to 8, wherein the storage medium includes a region on which a test pattern to adjust the intensity of the light beam in writing data on the storage medium is to be wrote, and the region is used as the recorded area and the unrecorded area.

16. The tracking controller of any one of claims 5 to 8, wherein the storage medium is a DVD-R disc, the recorded area is a data area or a control data zone, and the unrecorded area is a power calibration area.

17. The tracking controller of any one of claims 5 to 8, wherein the storage medium is a CD-R disc or a CD-RW disc, the recorded area is a data area or a power calibration area, and the unrecorded area is constituted by the first or last 30 ATIP frames of a test area of the power calibration area.

18. The tracking controller of any one of claims 5 to 8, wherein the storage medium is a DVD-RW disc, the recorded area is a data area or a recording management area, and the unrecorded area is a power calibration area.

19. The tracking controller of any one of claims 5 to 8, wherein the storage medium is a high-density storage medium from/on which data is read or written by means of a light beam with a wavelength of 405 nm, the recorded area is a permanent information and control data area or an optimum power control area, and the unrecorded area is another optimum power control area.

20. An optical disc drive comprising the tracking controller of claim 1.

21. A tracking control method for controlling a light beam such that the focal point of the light beam is located right on a target track on a storage medium by detecting how

much the focal point has shifted from the target track, the method comprising the steps of:

calculating a first gain of a tracking control loop at an arbitrary frequency when the focal point of the light beam is located on a recorded area of the storage medium on which data has already been written;

calculating a second gain of the tracking control loop at the arbitrary frequency when the focal point of the light beam is located on an unrecorded area of the storage medium on which no data has been written yet; and

adjusting the gain of the tracking control loop according to the first and second gains by determining whether the focal point of the light beam is located on the recorded area or on the unrecorded area.

22. A tracking control method for controlling a light beam such that the focal point of the light beam is located right on a target track on a storage medium by detecting how much the focal point has shifted from the target track, the method comprising the steps of:

calculating a first gain of a tracking control loop at an arbitrary frequency when the focal point of the light beam is located on a recorded area of the storage medium on which data has already been written;

calculating a second gain of the tracking control loop at

the arbitrary frequency when the focal point of the light beam is located on an unrecorded area of the storage medium on which no data has been written yet; and

adjusting the gain of the tracking control loop according to the first and second gains by determining whether or not data is being written on the storage medium.

23. The method of claim 21 or 22, further comprising the step of determining, by the intensity of the light beam that has been reflected from, or transmitted through, the storage medium, whether the focal point of the light beam is located on the recorded area or on the unrecorded area.

24. The method of claim 21 or 22, further comprising the step of turning the unrecorded area into the recorded area by writing data on the unrecorded area.

25. The method of claim 21 or 22, further comprising the step of turning the recorded area into the unrecorded area by erasing data from the recorded area.

26. A tracking control method comprising the steps of:

generating a tracking error signal that represents how much the focal point of a light beam has shifted from a target track on a storage medium;

generating a drive signal in response to the tracking error signal so as to move the light beam such that the focal point of the light beam is located right on the target track; and

switching the gain of at least one of the tracking error signal and the drive signal depending on whether or not the focal point of the light beam is located on a recorded area of the storage medium on which data has already been written.

27. The method of claim 26, wherein the step of switching the gain includes the step of switching the gain depending on whether or not data is being written on the storage medium.

28. The method of claim 26, further comprising the step of detecting the light beam that has been reflected from, or transmitted through, the storage medium and determining, by the light beam detected, whether the focal point of the light beam is located on the recorded area or on an unrecorded area of the storage medium on which no data has been written yet.

29. A computer readable storage medium having stored thereon a program that is defined so as to get the steps of claim 21, 22 or 26 executed by a computer.